Beach Nourishment, Static Lines, and Static Line Exceptions

Matt Slagel, Shoreline Management Specialist
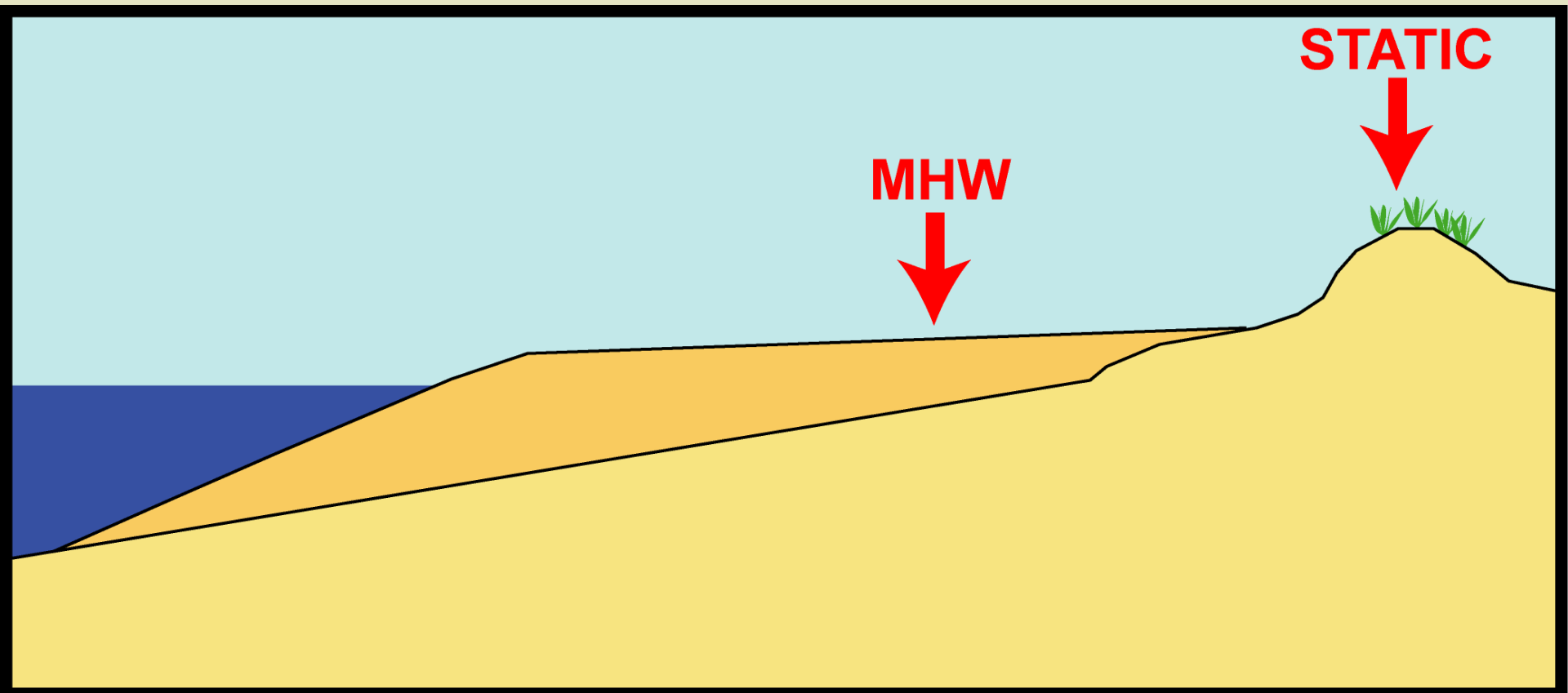

Coastal Resources Commission – February 26, 2014 – Nags Head

Defining the Static Line

Division of Coastal Management
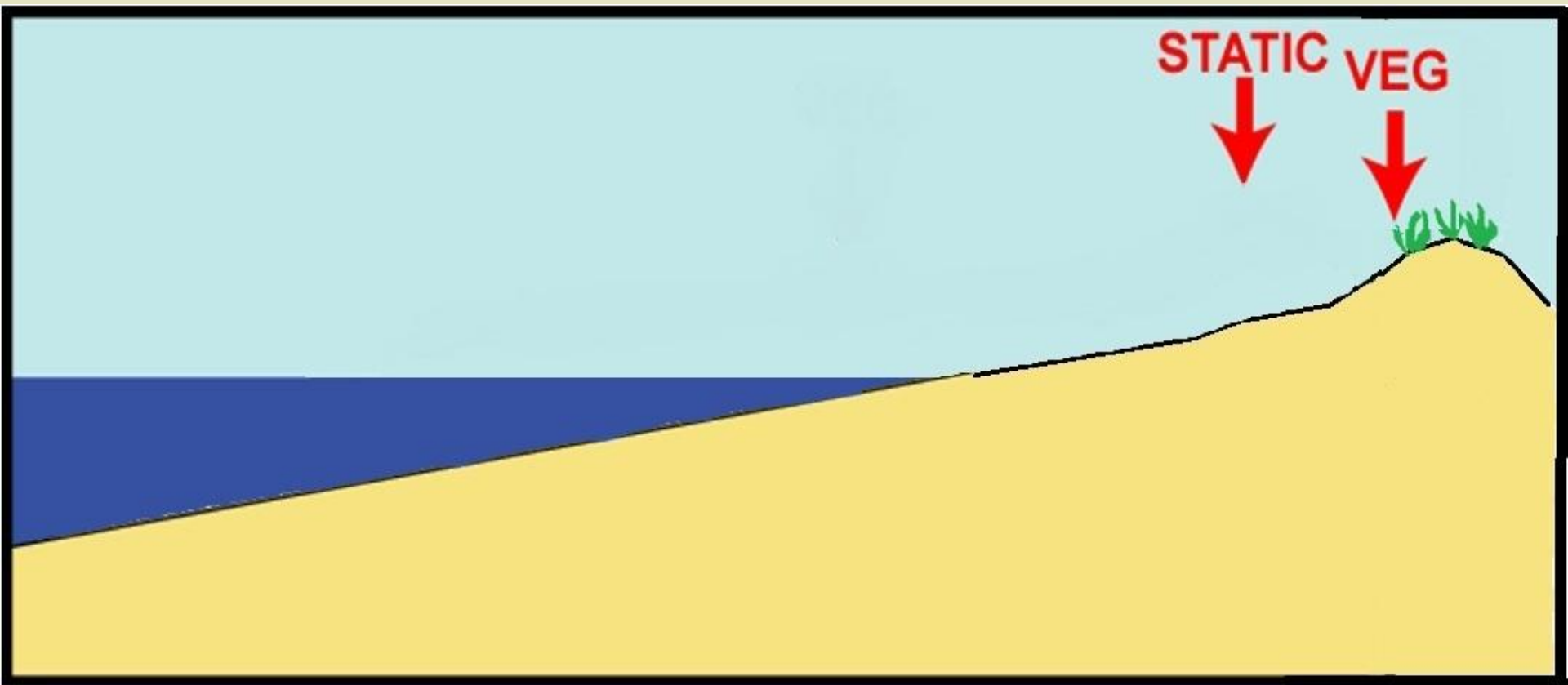
Defining the Static Line

STATIC

MHW
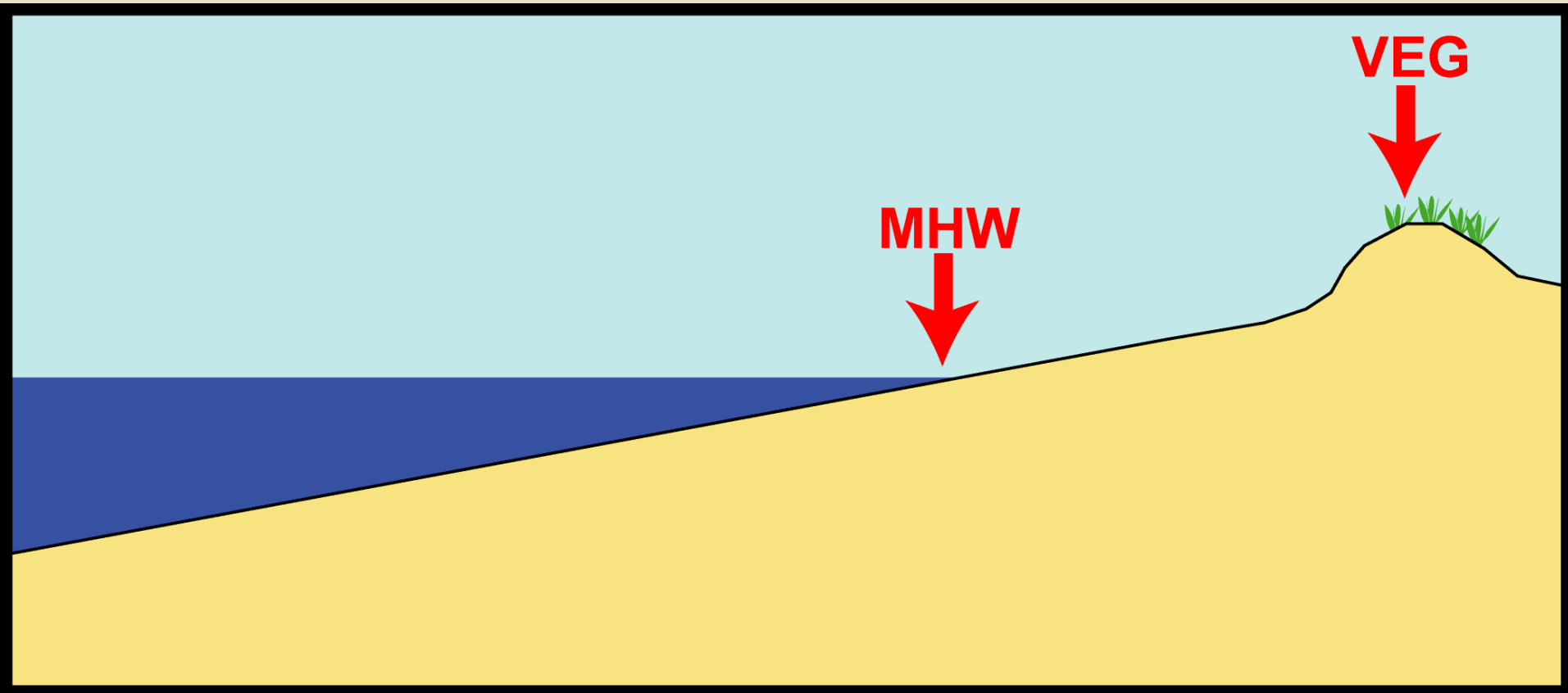
Defining the Static Line

Veg. Line Landward of Static Line

Static Line Policy

Codified by CRC in 1996, recognizing that:

1) Engineered beaches erode at least as fast as, if not faster than, the pre-project beach;

2) There is no assurance of future funding (or beach-compatible sand) for project maintenance; and

3) Development tied to a vegetation line in artificially forced systems could be located so as to be more vulnerable to natural hazards.

"Large-Scale" Definition

Old Definition:

- \> 200,000 cy

- \> 50 cy/ft

OR

- USACE Hurricane Protection project

Current Definition (2008):

- \> 300,000 cy

OR

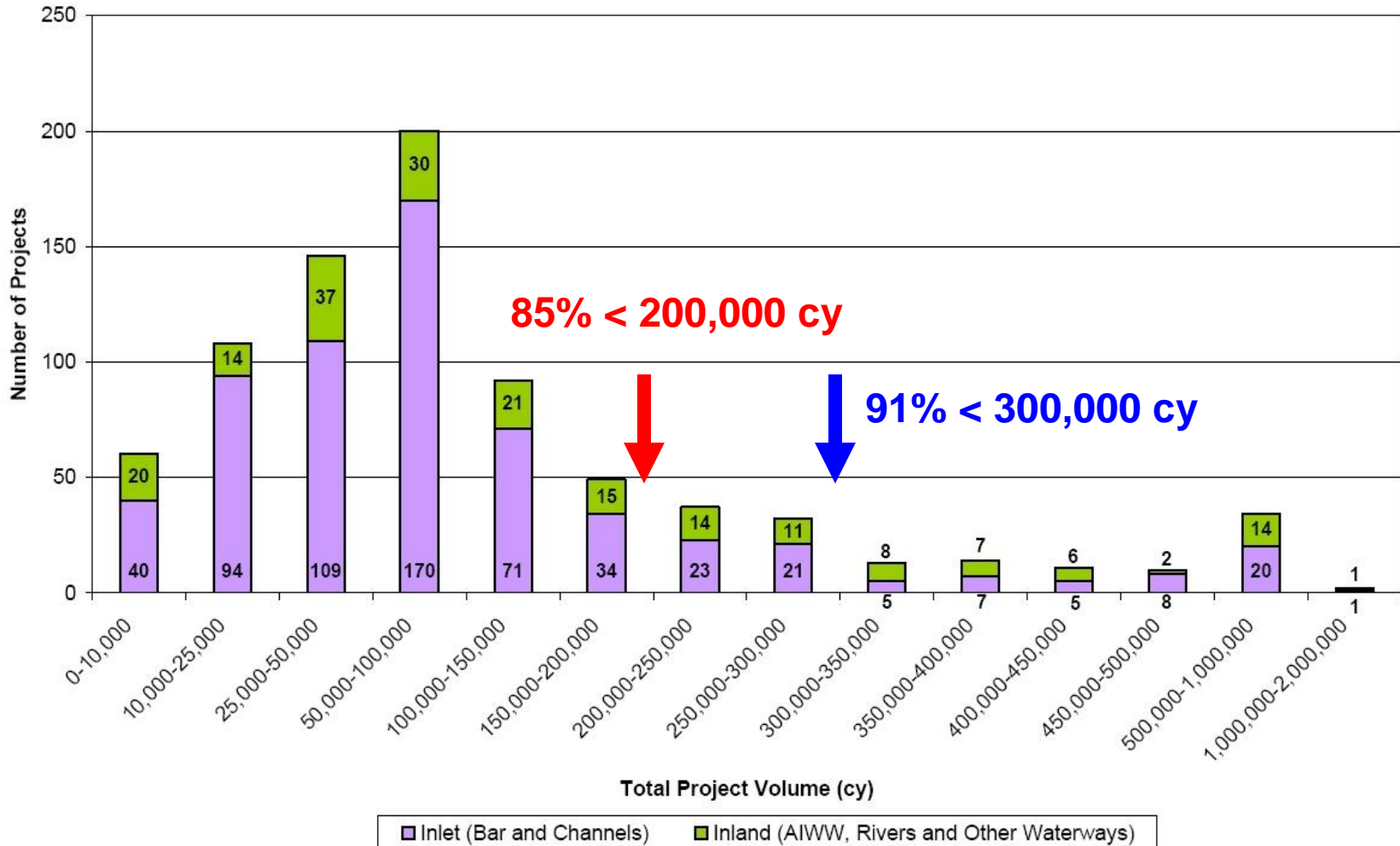- USACE CSDR project

"Large-Scale" Definition

Figure II-8. Project Sizes (FY 1975 – 2004)

Report on Costs, Benefits, and Management Issues related to Maintaining North Carolina's Shallow Draft Navigation Channels.
Moffatt & Nichol, November 2005.

Communities with Static Lines

- Ocean Isle Beach
- Oak Island
- Caswell Beach
- Bald Head Island
- Kure Beach
- Carolina Beach
- Wrightsville Beach

- Topsail Beach
- Emerald Isle
- Indian Beach
- Salter Path
- Pine Knoll Shores
- Atlantic Beach
- Nags Head

S.L. Exception Development Criteria

- 5 year waiting period after "large-scale project"
- Minimum setback of 60 ft or 30x erosion rate, **measured from vegetation line**
- Use the erosion rate at the time of permit issuance
- Total Floor Area < 2,500 sq ft
- In-line with adjacent structures
- No swimming pools oceanward of static line

S.L. Exception Development Criteria

For structures > 2,500 sq ft:

- **Setback is measured from the most landward line (either static line, veg. line, or measurement line).**

  – If structure is > 2,500 sq ft but < 5,000 sq ft, setback is 60 feet or 30x the erosion rate, whichever is greater.

  – If structure is > 5,000 sq ft, setback is 120 feet or 60x the erosion rate, whichever is greater.

S.L.E. Development Scenario
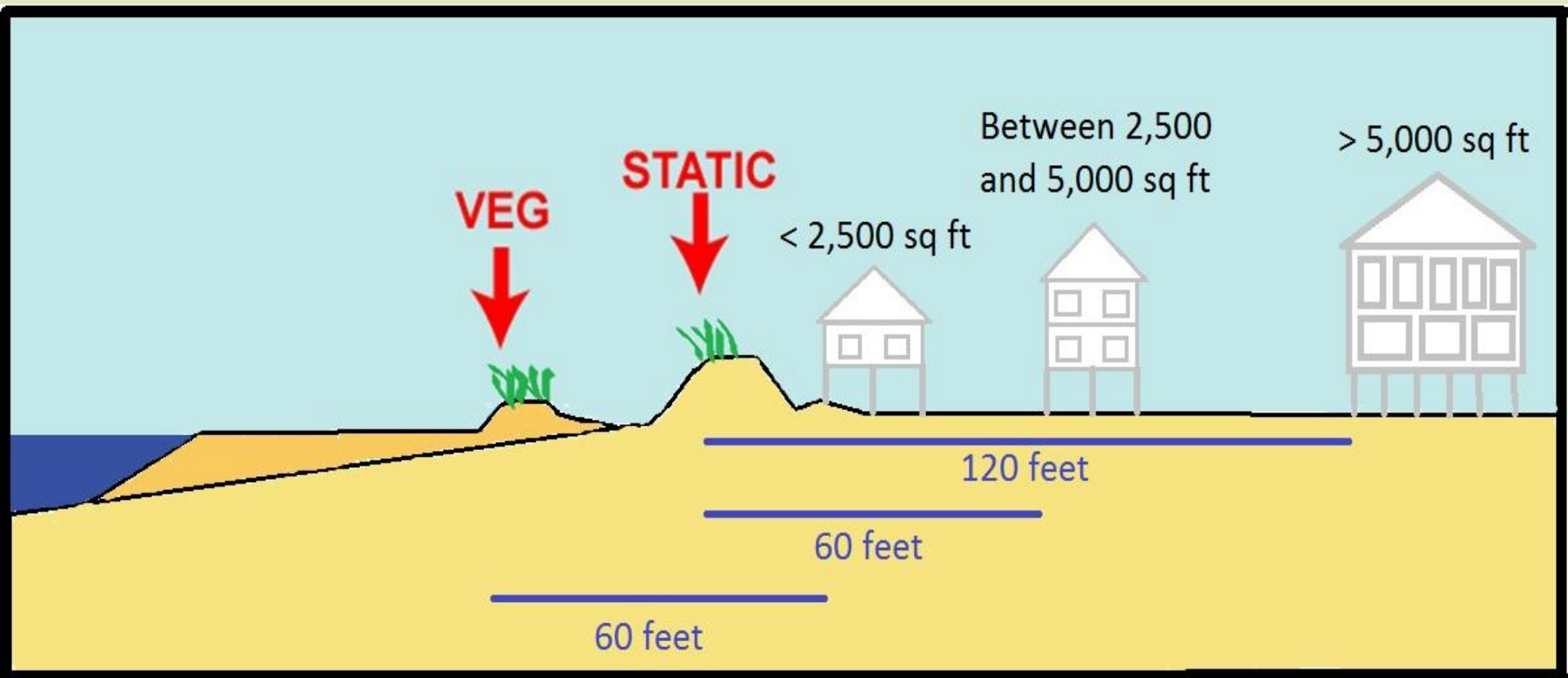
Static Line Exception Request

- Large-scale (USACE or > 300,000 cubic yards)
- > 30 year design life
- Proof of compatible sediment for life of project
- Financial resources to pay for life of project
- Town petitions for exception, CRC decides
- Every five years, town submits progress report and CRC reevaluates

S.L.E. Authorization / Renewal

1) Town submits technical report to DCM

2) DCM prepares summary report for CRC

3) DCM shares summary report with petitioner

4) At CRC mtg., DCM presents summary report with a recommendation to grant or deny, petitioner may provide comments, additional parties may provide comments, and CRC decides.

5) Same process for 5-year progress reports:

- Design changes to initial large-scale beach fill project
- Changes to location and volume of compatible sediment
- Changes to financial resources or funding sources

Static Line Exception Reports

Municipality	Date Adopted by CRC	5-Year Progress Reports Due
Carolina Beach	August 27, 2009	August 27, 2014
Wrightsville Beach	August 27, 2009	August 27, 2014
Ocean Isle Beach	January 13, 2010	January 13, 2015
Atlantic Beach	March 24, 2010	March 24, 2015
Emerald Isle	March 24, 2010	March 24, 2015
Indian Beach / Salter Path	March 24, 2010	March 24, 2015
Pine Knoll Shores	March 24, 2010	March 24, 2015

Static Lines and Static Line Exceptions

Static Lines	Static Line Exceptions	No Static Line
Ocean Isle Beach	Ocean Isle Beach	Sunset Beach
Oak Island		Holden Beach
Caswell Beach		Figure Eight Island
Bald Head Island		Surf City
Kure Beach		North Topsail Beach
Carolina Beach	Carolina Beach	Hatteras
Wrightsville Beach	Wrightsville Beach	Frisco
Topsail Beach		Buxton
Emerald Isle	Emerald Isle	Avon
Indian Beach	Indian Beach	Salvo
Salter Path	Salter Path	Waves
Pine Knoll Shores	Pine Knoll Shores	Rodanthe
Atlantic Beach	Atlantic Beach	Kill Devil Hills
Nags Head		Kitty Hawk
		Southern Shores
		Duck
		Corolla